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ABSTRACT

This study was designed to investigate relationships between selected teacher characteristics and changes in attitudes and concerns toward teaching during preservice training and the first five years of inservice teaching. Six groups of subjects (N=1,193) were used in the study; three groups of prospective teachers at various stages of preservice training and three groups of inservice teachers completing their first, third, or fifth years of teaching. It was found that: attitude toward teaching was highly positive and relatively stable throughout the concerned time period, task type concerns increased, self-survival type concerns decreased, and impact on student type concerns remained stable and higher than other types of concerns over the six preservice and inservice measurement points. Additionally, teaching field and gender were both found to be related to attitude and concerns toward teaching. Significant interactions were also identified between developmental period (combined preservice and inservice) and teaching field for both the attitude and concerns measures. (Author)

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# The Influence of Preservice Training and Teaching Experience Upon Attitudes and Concerns About Teaching

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Running Head: TRAINING AND EXPERIENCE

## Abstract

This study was designed to investigate relationships between selected teacher characteristics and changes in attitudes and concerns toward teaching during preservice training and the first five years of inservice teaching. Six groups of subjects (N=1193) were used in the study, three groups of prospective teachers at various stages of preservice training and three groups of inservice teachers completing their first, third, or fifth years of teaching. It was found that: attitude toward teaching was highly positive and relatively stable throughout the concerned time period, task type concerns increased, self-survival type concerns decreased, and impact on student type concerns remained stable and higher than the other types of concerns over the six preservice and inservice measurement points. Additionally, teaching field and gender were both found to be related to attitude and concerns toward teaching. Significant interactions were also identified between developmental period (combined preservice and inservice) and teaching field for both the attitude and concerns measures.

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## The Influence of Preservice Training and Inservice Teaching Upon Attitudes and Concerns About Teaching

The development and transition of prospective teachers from preservice training through the initial years of teaching has received increasing attention in recent years. This increased attention is evident through the proliferation of teacher induction programs, the renewed interest in research of the problems reported by beginning teachers, the development of several theoretical views of teacher evolution from novice to effective professional educator, and through recent teacher accreditation and certification standards extending the evaluation of teacher education programs from preservice through the initial teaching years.

Fuller (Fuller & Bown, 1975) conceptualized the development of teachers as passing through phases of concerns about becoming a teacher. Concerns within this model are viewed as perceived problems or worries about teaching. In early preservice training the prospective teachers are characterized by a lack of concern about teaching, identification with pupils, and by being concerned about their own survival as a student. Early concerns about teaching evolve about feelings of self-survival, later concerns are generated by the teaching task, itself, and finally the mature teacher's focus of concern is upon student impact or growth. Further, Fuller (1969) hypothesized that these phases (self, task, and impact) are sequential and accumulative. In accord with this model, appropriate preservice and inservice training is seen as addressing the sequence of concerns expressed by the prospective teacher and the practicing teacher, respectively. To facilitate research on this theoretical model the Teacher Concerns Questionnaire was developed which consists of three subscales, self, task, and impact. The form used in the present study (George, 1978) has fifteen items, five in each subscale.

Research of teacher concerns has resulted in Lortie (1975) describing the central concern of preservice teachers as being doubtful of actually ever being able to conduct instruction, and Fuller and Bown (1975) listing the primary concerns of both student teachers and beginning teachers as maintaining discipline, being liked by students, possessing adequate subject knowledge, handling mistakes or running out of material, and being able to function effectively with others in the school setting. Sufficient research is not yet available to validate Fuller's conception of preservice teacher concerns passing through stages although the results of some initial studies provide partial support for the model (Adams, Hutchinson & Martray, 1980; Adams & Martray, 1981; Sitter & Lanier, 1982). The findings from these studies suggest a change in self concerns but little or no change in task and impact concerns through five-year preservice training programs.

Not all theorists, however, believe that real change occurs during teacher training. Lortie (1975), although his primary focus was on inservice teachers, stated that teacher training has little impact on the socialization of teachers; rather, he argued that teacher socialization occurs primarily from the thousands of hours spent as a pupil in the classroom. Further, considerable debate exists in the literature over the role that the student teaching and preservice field experiences in general play in the development of teachers. For example, Berliner (1985) stated that there is reason to distrust the increased faith in student teaching and related field experiences to bring about reform in teacher preparation. Whereas, Tabachnick and Zeichner (1984), after reviewing much of the literature on both sides of this issue, argued that much of the apparent

conflicting evidence about the actual significance of student teaching might be explained by variations in student characteristics and by variations in the school settings associated with the student teaching experiences.

Also within a developmental perspective, Merwin and DiVesta (1959) constructed the situation-specific Attitude Towards Teaching As A Career Scale based upon need theory. Attitudes on this scale are conceptualized as a function of the individual belief value matrix and are seen as evolving from one's personal perception that the attitude object either blocks (negative) or facilitates (positive) need satisfaction. Within this framework, one has a positive attitude towards teaching as a career if he perceives teaching as satisfying his underlying needs; and from a developmental perspective, prospective teachers in training should report an increasingly more positive attitude toward teaching as they acquire experiences, knowledge, and skills associated with teaching.

Research on attitudes toward teaching suggests that prospective teachers have positive attitudes toward children, have less concern than other college students about future income, view teaching as a good preparation for family life, and have a desire to help others (Richards, 1960). During teacher training itself, research indicates that attitudes tend to change from more formalized and rigid to more liberal and democratic perspectives during early training but with a return to the former less humanistic classroom management attitude during student teaching (Callahan, 1980; Jacobs, 1968; Lipka & Garlet, 1981). This change and the return to initial attitudes have been observed even though the prospective teachers' overall positiveness of attitude toward teaching and children may become even more positive during student teaching (Paschal & Treloar, 1979; Sandgren & Schmidt, 1956). Additionally, Villeme and Hall (1980) found that prospective teachers' attitudes toward teaching and children varies by gender, anticipated teaching grade level, and selected major within education.

Relative to research focusing on the student to teacher transition period, Veenman (1984) reported a summary-review of 83 studies conducted over two decades on the problems noted by beginning teachers. He concluded that there are few differences in reported problems between elementary and secondary teachers, first year or more experienced teachers, teachers in different countries, or teachers from different preservice training programs; however, the relative ranking of the seriousness of these problems varied somewhat among these classifications of teachers. He noted that the most commonly reported problems of beginning teachers in rank order were: classroom discipline (by far the most frequently noted), motivation of students, dealing with individual differences, assessing student work, relationships with parents, and organization of classwork. Harrison and Westman (1974) further reported that the seven most frequently identified problems of beginning teachers were identical to those of more experienced teachers. Thus, it appears from these studies that teachers typically experience common problems through the early years of teaching even though the focus of their concerns about teaching may change.

A few studies have addressed the change in measured attitudes or concerns about teaching through teacher training and the initial teaching years, but findings are far from conclusive. Paschal and Treloar (1979) found that attitudes became more humanistic and liberal in orientation during teacher training, but by the third year of teaching attitudes had returned to

essentially the same as at the outset of teacher training. Adams (1982) reported a cross-sectional analysis of the concerns of student teachers and first, third, and fifth-year teachers as measured by the Teacher Concerns Checklist (an earlier form of the Teacher Concerns Questionnaire, see George, 1978). He found that teacher reported problems varied little over the initial years of teaching experience or between elementary and secondary teachers. Again, discipline and student motivation were reported as the major problems in that order. Relative to the concerns scales, he found that impact on students was the highest reported area of concern and that this type of concern was of greater concern to elementary than secondary teachers; however, he also found that the concerns reported by elementary and secondary teachers became more similar after their third and fifth years of experience. Further and in accord with Fuller's model, he reported that self concerns decreased with teaching experience and that task concerns increased with teaching experience; however, contrary to the model, he found that the impact on student concerns were highest at all experience points and did not change with teaching experience. Conversely, Silvernail and Costello (1983) reported that neither those students in a typical student teaching nor in an extended preservice internship had a substantial change in concerns as measured by the Teacher Concerns Questionnaire (which was in contrast to what would be expected within the Fuller model). The impact on student concerns were found to be the highest among the three subscale scores with change occurring only on the task concerns scale (an increase) and only for an extended-term intern sample as compared to a sample of students in a regular length student teaching program. Somewhat surprisingly, their data revealed that the interns appeared to show signs of shifting their concerns in a desirable direction during the first half of their teaching experience (e.g. less concern about task and self and more concern about their impact) but this trend began to reverse itself during the second half of the intern experience. The researchers speculated that this shift may have been due to the interns having to revert to the role of student following the internship. Also of interest, these researchers noted that their subjects did not demonstrate an increasingly punitive, controlling, or custodial attitude during their student teaching and internship experiences.

In two additional longitudinal studies utilizing more qualitative descriptions, researchers found that teachers reported a change in concerns during their initial years of teaching. Gehrke and Yamamoto (1978) found that first-year teachers were most concerned about conveying an impression of competence while third-year teachers were more concerned about being innovative and having an affective impact on their students. Similarly, McArthur (1980) following subjects from the final year of training through the first five years of teaching described first-year teachers as being in "reality shock" and concerned about self-survival followed by an alleviation of these types of feelings in the subsequent four years of experience.

## Purpose and Hypotheses

The developmental perspective of teacher evolution suggests that concerns and attitudes toward teaching will change in a predictable way through preservice training and into the initial years of employment as a teacher. The major purpose of this study was to investigate these purported changes with six groups of individuals at various points in their preservice training or in their initial years of full-time teaching. A secondary purpose of this study was to determine whether or not any identified changes in attitudes or concerns about teaching might be related to the teaching field or gender of these subjects.

Two general hypotheses were formulated and tested. Each was related to data collected from teachers or prospective teachers at six different points in the teacher preparation program or in the first five years of teaching. Specifically, the six points in time were: at the beginning of the preservice training program, just prior to the student teaching experience, just following the student teaching experience, or after the first, third, or fifth years of full-time teaching. The two stated hypotheses follow:

1. Attitudes and concerns about teaching will not change significantly during either teacher training or the first five years of teaching.

2. Changes in attitudes and concerns about teaching will not be related to gender or teaching field.

## Method

The subjects for the study consisted of six groups (N = 1193), three groups of prospective teachers in training at Bowling Green State University during 1985 and three groups of Bowling Green State University graduates employed as full-time teachers in Ohio during 1985. The teacher-education students consisted of a group of 559 students (mostly freshmen and sophomores) enrolled in a required orientation to the field of education course, of a group of 151 students who were about to commence their student teaching, and a group of 162 students who had just completed their student teaching experience. These latter two groups of students were college seniors. The three inservice teacher groups consisted of 94 teachers completing their first year of teaching, of 104 teachers completing their third, and 123 teachers completing their fifth year of teaching. It was assumed that these six groups of subjects were in essence random selections from a single population with the only major difference among the groups being varied degrees of training and/or teaching experience.

All six groups of subjects were administered: a) the Teacher Concerns Questionnaire (George, 1978); b) the Attitude Toward Teaching As A Career Scale (Merwin & DiVesta, 1959); and c) a questionnaire requesting demographic information including gender and major or teaching field (elementary, secondary, special education, or specialized areas).

These instruments were administered to class groups for the beginning students sample, were distributed by their university supervisor for the pre- and post-student teaching samples, and were sent through the mail for the three inservice teacher groups. The names and addresses of the teacher subjects were identified by matching the Ohio Department of Education lists of currently active teachers with University teacher education graduate lists since 1980. The Concerns Questionnaire consists of 15 items with five items on each of the self, task and impact subscales. The response scale for each item is a continuum from 1 (not concerned) to 5 (extremely concerned). The Attitude Scale consists of 11 items with each item answered on a 1 (strongly disagree) to a 6 (strongly agree) response format where a higher score represents a more positive attitude.

Two-way ANOVA procedures were used to analyze the data gathered from the six groups of subjects. Attitude and concerns scores were used as the dependent variables in these analyses. The six points in training or experience (beginning training, pre- and post-student teaching, and first, third, and fifth

year of teaching) were used as one set of independent variables (e.g. column variable); gender and teaching field were used as classification or a second independent variables (e.g., row variables) in the two-way ANOVA procedures. When appropriate, Scheffe's post-hoc procedure with alpha at the .05 level was used to ferret out significant pair-wise mean comparisons.

## Results

The analysis of the data collected at the six points of time in the development of teachers resulted in the rejection of both stated hypotheses as changes did appear at different points in time and the dependent variable measures were found to be related to subject gender and teaching field. The results were not, however, consistent across all criterion measures or subject classification variables nor were the concerns results clearly consistent with the Fuller model of teacher development.

### Column Main Effects: Six Points of Time in Teacher Development

The results of the two-way ANOVA procedures completed on each of the five criterion measures for the six stages in teacher development are reported on Table 1. The F's presented in Table 1 may be interpreted as column main effects F's; similarly, the F's presented in Table 2 are related to row (gender) effects; and the F's presented in Table 3 are related to row (teaching field) analyses. Significant mean differences were identified among the six samples of subjects on the task, self, and total concerns scales; significant differences were not identified among the six samples on the impact scale; and the mean differences on the attitude scale only approached significance, $p = .07$.

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The score means on the task scale appeared to follow a general pattern of increase from the beginning of teacher training through the first five years of teaching ($F = 12.60$, $p < .005$); however, the Scheffe post-hoc pair-wise mean comparison technique with alpha set at .05 revealed that only the initial training mean score was significantly lower than the post-student teaching and the three inservice teaching mean scores. As data in Table 1 indicate, the task means for the six points of teacher development were, respectively: 12.00, 13.46, 13.80, 13.70, 13.72, and 14.31. Conversely, the self scale score means appeared to follow a general declining pattern from training through teaching experience with the highest means occurring just prior to student teaching and near the end of the first year of student teaching ($F = 5.11$, $p < .005$). The Scheffe comparisons, however, revealed that only the pre-student teaching and the first-year teacher means were significantly higher than the fifth-year teacher mean. These self scale means over the six points in time were, respectively: 15.97, 17.72, 16.30, 17.21, 16.06, and 14.67.

The total concerns scale score means followed a pattern similar to that of the self scale scores, with scores declining after student teaching and after the first year of teaching ($F = 2.05$, $p = .02$). The Scheffe procedures, however, revealed that only the pre-student teaching score mean was significantly larger than the initial training score mean. These total concerns scale means were, respectively: 46.56, 50.00, 48.41, 49.56, 47.91, and 47.83.

Neither the impact nor the attitude towards teaching mean scores appeared to vary to a significant extent over the six samples of subjects. The attitude scores resulted in an F-ratio approaching significance ($F = 2.05$, $p = .07$), but the Scheffe procedure failed to reveal any pair-wise differences. The impact scale scores were the highest among the three Teacher Concerns Questionnaire scale scores at all six measurement points and appeared to remain stable over time ($F = 0.48$, $p = .79$).

Row Main Effects: Gender and Teaching Field Classifications

Several significant mean differences were identified among the groups of subjects when they were, in addition to six developmental stages, also classified by gender or teaching field. The results of these gender and teaching field analyses are presented on Table 2 and Table 3, respectively. The female subjects generally tended to report higher concerns but a more positive attitude towards teaching than did the male subjects. The attitude score mean for the male subjects was 47.97; whereas the attitude score mean for the female subjects was 50.92 ($F = 26.01$, $p < .005$, see Table 2). The difference between the two genders on the total concerns scale score means approached a statistical significance ($F = 3.61$, $p = .06$), male mean = 46.58 and female mean = 48.07; whereas, the impact scale score gender means, male = 17.76 and female = 18.81, were statistically different ($F = 9.60$, $p < .005$). Neither the task scale nor the self scale revealed mean differences between the gender classifications. For the four concerns measurements, the only significant gender difference was related to the impact scale.

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Insert Tables 2 & 3 About Here
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The teaching field classification revealed significant mean differences among the groups of subjects on the impact, total concerns, and the attitude measures but not for the task and self measures (see Table 3). The impact means ($F = 10.66$, $p < .005$) were, in ascending order: secondary 17.88, specialized area 18.03, elementary 18.72, and special education 19.55. The Scheffe comparisons indicated that the special education impact mean was significantly higher than the secondary and specialized area means, but that the mean for the elementary majors was not different from any of the other three means. The total concerns scale means ($F = 2.72$, $p = .04$) were, in ascending order: secondary 45.66, elementary 48.06, specialized area 48.35, and special education 48.98. The Scheffe comparison procedures for this set of means indicated that the secondary mean was lower than the special education and special areas averages, but not different from the elementary mean.

Data presented in Table 3 also indicate that there was a significant mean difference among the four teaching field classifications with respect to the attitude scores ($F = 4.38$, $p < .005$). The attitude means for these groups were, in ascending order: special areas 49.19, secondary 49.54, special education 49.96, and elementary 52.11. The Scheffe analysis on this set of means indicated that the elementary teachers reported a more positive attitude toward teaching than did the other three groups, and that the other three groups did not differ in their mean attitudes toward teaching.

Interaction Effects: Six Developmental Stages X Gender and X Teaching Field:

The two-way ANOVA procedures completed by using the six points in time as one independent variable and either gender or teaching field as the other independent or classifying variables with each of the five dependent measures as reported on Table 2 and Table 3, respectfully, resulted in the identification of four significant ($p < .05$) interaction effects. The gender classification interacted with the six points in professional development when the attitude measure was used as the dependent variable ($F = 3.59$, $p < .005$, see Table 2). Additionally, data in Table 3 reveal that teaching field classification interacted with the six measurement points in professional development when the task ($F = 2.13$, $p = .01$), impact ($F = 1.78$, $p = .03$), and the attitude ($F = 2.70$, $p = .005$) measures were used as the dependent variables.

Rather than attempting to interpret interactions from 2 x 6 and 4 x 6 tables, another set of simpler two-way ANOVAs were completed in an attempt to discover how gender and teaching fields might be interacting with the developmental stages. For these additional analyses, the six developmental stages were pooled into the two classifications of preservice and inservice teachers. The gender and teaching field classifications remained as they were for the earlier 2 x 6 and 4 x 6 analyses. These later analyses revealed significant interactions between preservice/inservice stages of teacher development and the teaching field classification for each of the five criterion measures but no significant stage of development and gender interactions. Data related to these interactions are presented on Table 4 and Figures 1 and 2.

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Data presented in Figures 1 and 2 indicate the primary causes of the significant interactions noted in Table 4. For task concerns, data in Figure 1 show that the secondary majors behaved in a way that was dissimilar to the teachers in the other three fields. The preservice secondary majors had the least task concern level of the four preservice field groups; however, the inservice secondary teachers had the highest level of task concern. This undoubtedly was the primary cause of the significant developmental stage by field interaction for the task scores presented in Table 4 ($F = 4.60$, $p < .005$). It may also be observed in Figure 1 that the preservice and inservice secondary field majors behaved differently than the teachers in the other fields on the self-concerns scores. The plots of the cell means depict that the secondary preservice teachers had, comparatively, very little concern about their self-survival as teachers but that the inservice secondary teachers had the highest self-survival concerns of the four fields.

With respect to the impact scores, it may be observed that the preservice and inservice elementary teachers had approximately the same level of impact concerns but that the inservice secondary teachers and specialized teachers had lower levels of impact concern than did their preservice counterparts. Only the inservice special education teachers had a much higher level of impact concern than did its preservice counterpart.

Item Analyses of the Five Criterion Measures

When subject responses to each individual scale item on the concerns scales were examined, it was noted that seven of the 15 items revealed significant mean differences ($p < .05$) when the total number of subjects were classified by gender, that seven items revealed differences when all the subjects were classified by teaching field, and that 10 of the 15 items revealed significant mean differences when the subjects were grouped by the six points in professional development. These findings are reported on Tables 5 and 6.

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For six of the seven concerns scale items revealing significant mean differences between male and female responses, the female subjects reported higher concerns about teaching than did the male subjects; these six were each of the impact items (ranked 1-5 on Table 5) and item 10 [whether they were (or will be) accepted by other professionals]. Only on one concerns scale item (ranked 14) did the males report higher concerns than did the females. This item was of the teaching task classification and pertained to the routine and inflexibility of the teaching situation.

The secondary subjects reported significantly lower mean concerns about teaching as compared to one or more of the other three teaching fields for six items, specifically those items ranked 1, 5, 7, 9, 10, and 11 on Table 5. The specialized area majors reported less concern than at least one other group on three items, "meeting demands of individual students," "students getting what they need," and "routine and inflexibility of the teaching situation"; whereas the elementary field subjects reported higher concerns about teaching than one or more of the other teaching field groups for four of the 15 items, items ranked 1, 2, 5, and 11.

The subjects, whether classified by gender (Table 5), teaching field (Table 5), or point in time in professional development (Table 6), reported considerable agreement about those items which elicited the greatest or the least concern about teaching. In particular the rankings of the top four items (all impact on student concerns) and of the bottom four items (all teaching task concerns) among the various subject classifications are very consistent. Also suggesting common agreement across all groups in terms of relative amount of concern felt toward individual scale items, nearly without exception each of the various groups ranked all five of the impact scale items in the top five, all five of the self items next, and all five of the task items last.

Only the ranking of the items by the subjects at the various six points in professional development (Table 6) reveals items with rank order differences among groups greater than three. Further, it can be noted that where the rank order discrepancy among groups is three or greater, the discrepancies appear to be due almost solely to the differences in ranking by the group of fifth-year teachers as compared to the other groups. This is true for five of the six items with "large" rank order discrepancies (three or greater) as can be noted by reviewing items ranked 6, 9, 12, 13, and 15 in Table 6. More specifically, it appears that the fifth-year teachers felt relatively higher concerns about "feeling under pressure at times," "too many noninstructional duties," and

"working with too many students," but had relatively lower concerns about "doing well when a superior is present" and "maintaining class control."

The item analysis procedures completed on the attitude scale revealed significant mean differences for 10 of the 11 items between the two gender classifications (Table 7), on eight of the 11 items among the four teaching field classifications (Table 7), and on six of the 11 items among the six samples of subjects at different points in their training or teaching experience (Table 8). Despite this relatively large number of group differences on the attitude scale items, the relative ranking of the items in terms of positiveness toward teaching was very comparable for all three of these subject classifications. This similarity in rank ordering of the items was particularly true among the teaching field and gender classifications as no single scale item resulted in rank order differences greater than two among the various groups within these two classifications (see Table 7). Similarly, Table 8 data reveal a high degree of consistency among the ranks for most items; however, there was also rank differences of four on two items (5 & 6) and differences of three and 3.5 for another three items (2, 3, and 4). On three of these five items the major differences in rank order occurred primarily between the preservice and inservice teaching subgroups: "I enjoy teaching," "not convinced of the importance of teaching," and "not worth sacrifice of college and low salary." Only on two items with a rank inconsistency of three or more, "being aware of the advantages of teaching" and "don't care for work of teacher" were the differences larger within either the inservice or preservice groups than across the inservice and preservice groupings.

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Insert Tables 7 and 8 About Here
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## Summary and Discussion

The data collected in this investigation suggest that changes do occur in individuals during teacher training and the first years of teaching. Secondly, the data suggest that these changes tend to be relatively positive and predictable in nature although change may vary considerably for a particular group of individuals as contended by researchers such as Tabachnick & Zerchner (1984). As suggested by the Fuller developmental model (Fuller & Bown, 1975), total concerns about teaching and self survival type concerns tended to decrease with training and teaching experience while task concerns were initially low but increased as the individuals began the complex task of teaching. Contrary to the Fuller model, but consistent with other research (Adams, 1982), impact concerns were stable and highest among the three concerns scales; this was true for subjects in each of the six measurement periods of this study.

Three patterns of change in concerns were revealed through the preservice and inservice years. These patterns may be characterized as low job specific concerns early in the preservice years (feeling under pressure, too many noninstructional duties, and having too many students), an increase in job specific concerns as the prospective teachers anticipate the actual tasks of instruction prior to student teaching (sufficient instructional materials available, doing well, too many noninstructional duties, being accepted by other professionals, and getting a favorable evaluation), and a decrease in self adequacy related concerns by the fifth year of teaching (maintaining class

control, doing well with superior present, lack of materials, getting a favorable evaluation, and being accepted by other professionals).

The data collected in this investigation did not lend support to the developmental assumption underlying the attitude scale that training should result in an increasingly positive attitude towards teaching as a career (Merwin & DiVesta, 1959). However, the consistently positive attitude maintained over the training period and the first five years of experience (with at most a very modest decline during the inservice years) might be deemed a very positive finding in light of the complexity and high demands of the profession. The differences in attitudes expressed by different genders and subjects in the various teaching fields are consistent with other findings (Villeme & Hall, 1980); similarly, other researchers have also reported abrupt and less desirable changes in the early development of secondary teachers (Weinstock & Peccolo, 1970).

Two patterns of attitude change were revealed through the preservice and inservice years of experience. First, attitude toward teaching for the total sample decreased somewhat in the inservice as compared to the preservice years (this difference was significant only for the combined inservice and preservice group comparisons); and, secondly, the attitudes of the special education majors remained stable or became somewhat more positive during the inservice years while the attitude of those teachers in the other major fields became less positive. Differences in attitude by subject groups may be described as more positive for the females and the elementary majors (and the inservice special education majors) as compared to the males and the other major fields.

In general the inservice teachers with more experience were found to be less concerned than preservice teachers about maintaining class control and the presence of a superior, but they were likely to be more concerned about feeling under pressure on the job and having too many noninstructional duties. Differences in concerns, however, were as likely to be found within either the preservice or the inservice groups as they were likely to be found between these two groups. Secondary teachers when compared to the other three major field groups were found to be less concerned about the presence of a superior, being evaluated, meeting student needs, and lack of sufficient instructional materials, but they were more likely to be concerned about the teaching setting being too routine and too inflexible. Elementary teacher concerns were more similar to special education and specialized area (art, music, etc.) teachers than they were to those of the secondary teachers.

Attitudes toward teaching were found to vary as much among the three points of preservice training as they varied between the preservice and inservice groupings. However, the inservice teachers reported a modestly less positive attitude toward teaching than did the preservice teachers. On all attitude items revealing significant differences among gender or teaching field groups, the female and elementary teachers reported more positive attitudes toward teaching than did males or one or more of the the other three teaching field groups. Generally, the elementary teachers reported attitudes similar to the special education teachers; the secondary teachers reported attitudes towards teaching similar to the specialized area teachers; and the special education majors maintained a higher attitude toward teaching than the other groups in the transition from preservice to the inservice period of development.

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Table 1

Means and F-ratios Related to Five Criterion Measures and Teachers at Six Developmental Stages (Column Effects)

| Measure | F[a] | p | Developmental Stages Means: Begin Train. | Pre-St. Teach. | Post-St. Teach. | 1st yr. Teach. | 3rd yr. Teach. | 5th yr. Teach. |
|---|---|---|---|---|---|---|---|---|
| Concerns: | | | | | | | | |
| Task | 12.60 | .00[b] | 12.00 | 13.46 | 13.80 | 13.70 | 13.72 | 14.31 |
| Post-hocs:[c] | | | B | A,B | A | A | A | A |
| Self | 5.11 | .00 | 15.97 | 17.72 | 16.30 | 17.21 | 16.06 | 14.67 |
| Post-hocs: | | | A,B | A | A,B | A | A,B | B |
| Impact | 0.48 | .78 | 18.60 | 18.76 | 18.36 | 18.58 | 18.25 | 18.80 |
| Total | 2.78 | .02 | 46.56 | 50.00 | 48.41 | 49.56 | 47.91 | 47.83 |
| Post-hocs: | | | B | A | A,B | A,B | A,B | A,B |
| Attitude | 2.05 | .07 | 50.94 | 50.12 | 50.60 | 49.14 | 49.11 | 49.67 |

[a] SAS Type III Sums of Squares

[b] p value of .00 is to be interpreted as $p < .005$

[c] Scheffe tests at $p < .05$; means coded with same letter do not differ significantly

Table 2

Means and F-ratios [Gender (Row Effects) and Interaction] Related to Five Criterion Measures

| | | | Gender Means | | Interactions | |
|---|---|---|---|---|---|---|
| Measure | F[a] | p | Male N=220 | Female N=950 | Six Stages X Gender F | p |
| Concerns: | | | | | | |
| Task | 0.05 | .83 | 13.10 | 12.92 | 1.83 | .10 |
| Self | 1.70 | .19 | 15.75 | 16.37 | 0.67 | .65 |
| Impact | 9.60 | .00[b] | 17.76 | 18.81 | 0.72 | .61 |
| Total | 3.61 | .06 | 46.58 | 48.07 | 0.69 | .63 |
| Attitude | 26.01 | .00 | 47.97 | 50.92 | 3.59 | .00 |

[a]SAS Type III Sums of Squares

[b]Value of .00 is to be interpreted as $p < .005$

Table 3

Means and F-ratios [Teaching Field (Row Effects) and Interaction] Related to Five Criterion Measures

| | | | Teaching Field Means | | | | Interactions Stages X Fields | |
|---|---|---|---|---|---|---|---|---|
| Measure | F[a] | p | Elem. N=350 | Second. N=290 | Sp.Educ. N=290 | Sp.Areas N=230 | F | p |
| Concerns: | | | | | | | | |
| Task | 0.53 | .66 | 12.82 | 12.32 | 13.48 | 13.33 | 2.13 | .01 |
| Self | 1.32 | .26 | 16.56 | 15.45 | 15.89 | 17.05 | 0.99 | .47 |
| Impact | 10.66 | .00[b] | 18.72 | 17.88 | 19.55 | 18.03 | 1.78 | .03 |
| Post-hocs:[c] | | | A,B | B | A | B | | |
| Total | 2.72 | .04 | 48.06 | 45.66 | 48.98 | 48.35 | 1.43 | .13 |
| Post-hocs:[c] | | | A,B | B | A | A | | |
| Attitude | 4.38 | .00 | 52.11 | 49.54 | 49.96 | 49.19 | 2.70 | .00 |
| Post-hocs:[c] | | | A | B | B | B | | |

[a] SAS Type III Sums of Squares

[b] Value of .00 is to be interpreted as $p < .005$

[c] Scheffe tests at $p < .05$; means coded with the same letter do not differ significantly

Table 4

Means and F-ratios Related to Five Criterion Measures and Two Developmental Stages

| Measure | F[a] | p | Developmental Stages Means | | Interactions[b] | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Pre-Service (N=850) | In-Service (N=310) | Stages X Fields F | Stages X Fields p | Stages X Gender F | Stages X Gender p |
| Concerns | | | | | | | | |
| Task | 25.24 | .00[c] | 12.60 | 13.95 | 4.60 | .00 | 1.91 | .17 |
| Self | 1.52 | .22 | 16.34 | 15.87 | 2.80 | .04 | 0.54 | .46 |
| Impact | 2.39 | .12 | 18.62 | 18.56 | 5.71 | .00 | 0.36 | .55 |
| Total | 0.35 | .56 | 47.51 | 48.35 | 2.99 | .03 | 0.22 | .64 |
| Attitude | 8.81 | .00 | 50.73 | 49.34 | 3.68 | .01 | 0.29 | .59 |

[a] SAS Type III Sums of Squares

[b] The first set of interaction data is derived from 2 x 4 ANOVAs (Two developmental stages [preservice and inservice] and four teaching fields) and the second set from 2 x 2 ANOVAs (two developmental stages and gender.)

[c] A p value of .00 is to be interpreted as $p < .005$

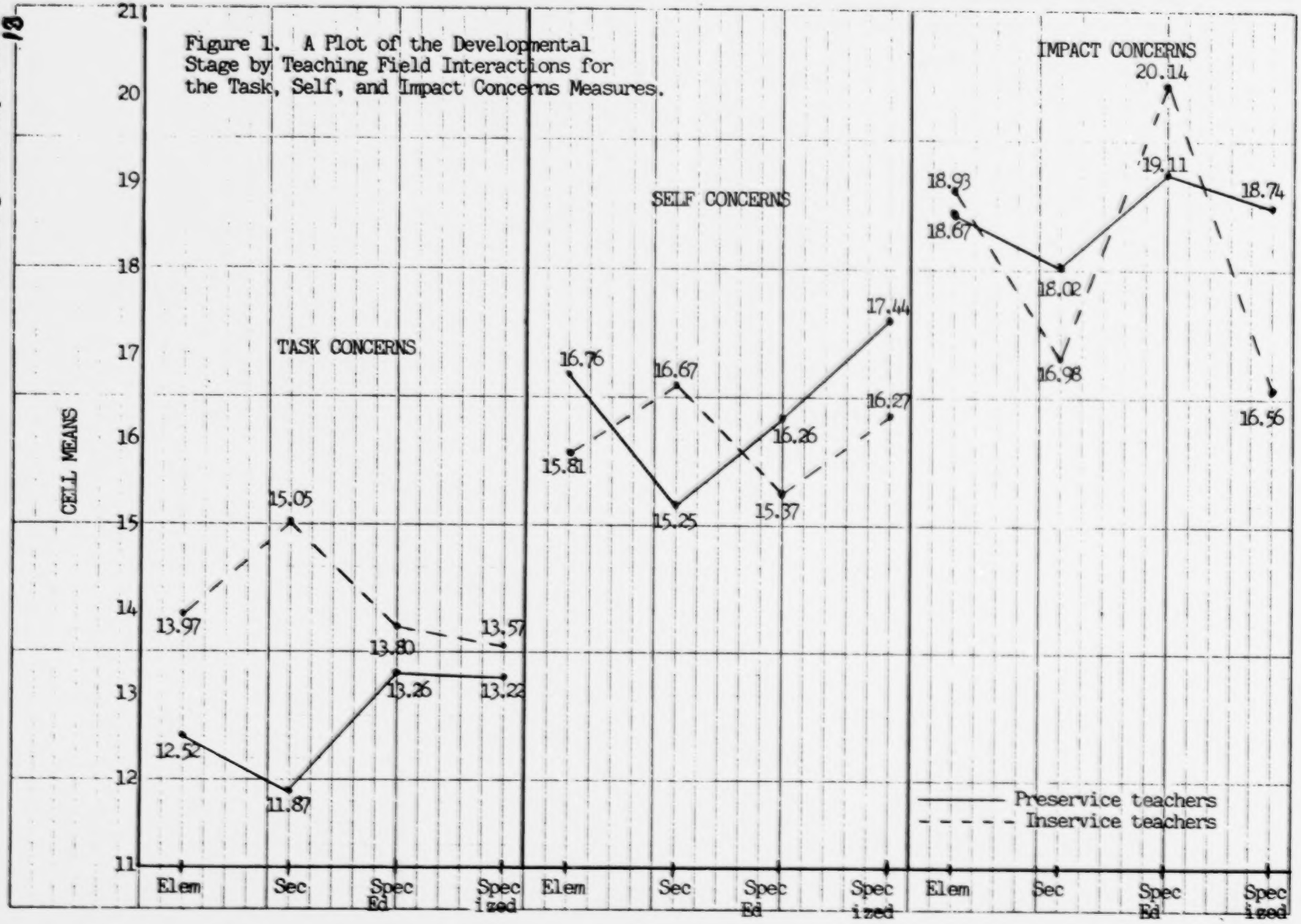


Figure 1. A Plot of the Developmental Stage by Teaching Field Interactions for the Task, Self, and Impact Concerns Measures.

Figure 2. A Plot of the Developmental Stage by Teaching Field Interactions for the Total Concerns and Attitude Measures

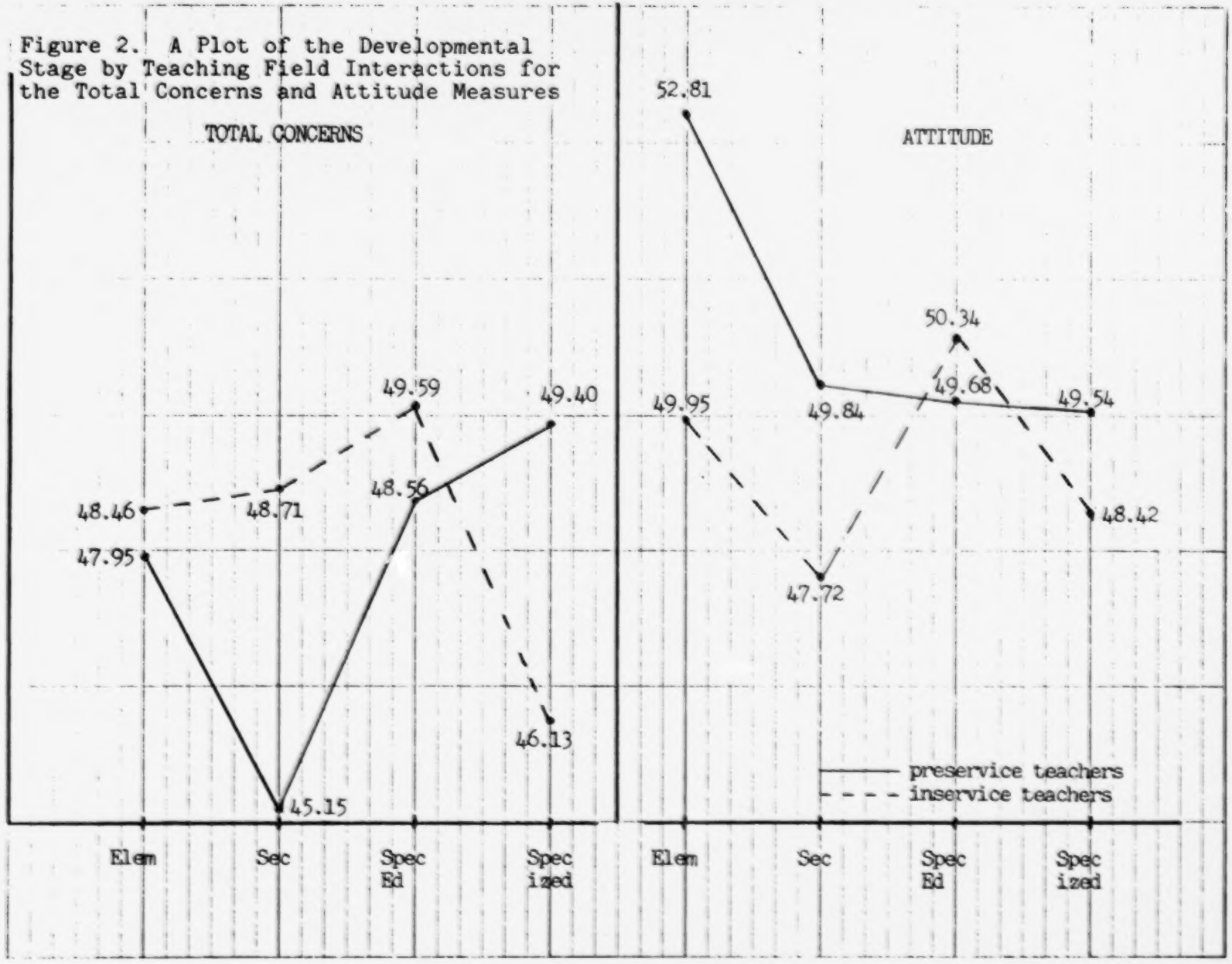

Table 5

Concerns Statements Rank Ordered by Magnitude of Concern for Gender, Teaching Fields, and Total Sample

| Item and Type[a] | Rank | Gender | | | Teaching Field[d] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | p[c] | (1) | (2) | (3) | (4) | p[e] | Scheffe[f] |
| Meeting student needs (I) | 1 | 3 | 1 | .001 | 1 | 3 | 1 | 1 | .001 | 2 < 1 & 3, 4 < 3 |
| Demands individual students (I) | 2 | 2 | 2 | .015 | 2 | 2 | 2 | 3 | .005 | 3 > 2 & 4 |
| Unmotivated students (I) | 3 | 1 | 3 | .046 | 3 | 1 | 3 | 2 | .888 | ------ |
| Guiding student growth (I) | 4 | 4 | 4 | .039 | 4 | 4 | 4 | 4 | .221 | ------ |
| Diagnosis learning problems (I) | 5 | 6 | 5 | .007 | 6 | 7 | 5 | 10 | .001 | all different except 2=4 |
| Class control (S) | 6 | 5 | 6 | .368 | 7 | 5 | 7 | 5 | .106 | 4 > 3 |
| Evaluation of teaching (S) | 7 | 7 | 8 | .451 | 5 | 8 | 8 | 6.5 | .017 | 2 > 4 & 1 |
| Feeling adequate (S) | 8 | 8 | 7 | .361 | 9 | 6 | 6 | 8 | .082 | ------ |
| Superior present (S) | 9 | 9 | 9 | .124 | 8 | 9 | 9 | 6.5 | .001 | 2 < 1 & 4 |
| Accepted by others (S) | 10 | 11 | 10 | .005 | 10 | 10 | 10 | 9 | .001 | 4 > 3 & 2, 1 > 2 |
| Lack of materials (T) | 11 | 10 | 11 | .338 | 11 | 12 | 11 | 11 | .001 | 2 < 1 & 3 & 4 |
| Feeling under pressure (T) | 12 | 12 | 12 | .425 | 12 | 11 | 12 | 12 | .754 | ------ |
| Too many students (T) | 13 | 15 | 13 | .449 | 13 | 14 | 13 | 14 | .555 | ------ |
| Teaching routine/inflexible (T) | 14 | 13 | 14 | .006 | 14 | 13 | 15 | 13 | .084 | 4 < 2 |
| Too many noninstructional duties (T) | 15 | 14 | 15 | .143 | 15 | 15 | 14 | 15 | .961 | ------ |

[a] I=Impact Concern Item; S=Self; T=Task

[b] These ranks were derived from pooling all samples (N ≃ 1200)

[c] One-way ANOVA, F-test, probability between gender score means on concerns items

[d] (1) elementary, (2) secondary, (3) special education, (4) specialized areas (e.g., art, music, etc.)

[e] One-way ANOVA, F-test, probability between teaching field score means on concerns items

[f] $p \leq .10$, the first set of findings may be read as follows: the mean of the secondary teachers is significantly less than the elementary and specialized means; the specialized mean is less than the special education mean.

Table 6

Concerns Statements Rank Ordered by Magnitude of Concern for Total Sample and Samples During Preservice and Inservice

| Item and Type[a] | Rank[b] | Developmental Stages[c] Preservice (1) | (2) | (3) | Inservice (4) | (5) | (6) | F[d] | p | Scheffe[e] |
|---|---|---|---|---|---|---|---|---|---|---|
| Meeting student needs (I) | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0.51 | .772 | ---- |
| Demands individual students (I) | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 0.87 | .497 | ---- |
| Unmotivated students (I) | 3 | 3 | 2 | 2 | 1 | 1 | 3 | 0.65 | .664 | ---- |
| Guiding student growth (I) | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 0.60 | .699 | ---- |
| Diagnosis learning problems (I) | 5 | 5 | 10 | 6 | 10 | 6 | 5 | 1.20 | .307 | ---- |
| Class control (S) | 6 | 6 | 4 | 4 | 5 | 5 | 9 | 3.63 | .001 | 6 < 2 & 3 & 4 |
| Evaluation of teaching (S) | 7 | 8 | 6 | 7 | 7 | 8 | 8 | 4.48 | .001 | 2 > 1 & 6 |
| Feeling adequate (S) | 8 | 7 | 8 | 9 | 6 | 7 | 7 | 2.50 | .029 | ---- |
| Superior present (S) | 9 | 9 | 7 | 8 | 8 | 9 | 13 | 6.76 | .001 | 1 < 2<br>6 < 1 & 2 & 4 |
| Accepted by others (S) | 10 | 10 | 9 | 10 | 9 | 10 | 12 | 3.68 | .003 | 2 > 1 & 3 & 6 |
| Lack of materials (T) | 11 | 11 | 11 | 12 | 11 | 12 | 14 | 2.99 | .011 | 2 > 1 & 6 |
| Feeling under pressure (T) | 12 | 12 | 12 | 11 | 12 | 11 | 6 | 9.63 | .001 | 1 < 3 & 5 & 6 |
| Too many students (T) | 13 | 14 | 13 | 14 | 14 | 13 | 10 | 11.23 | .001 | 1 < 2 & 3 & 4 & 5 & 6 |
| Teaching routine/inflexible (T) | 14 | 13 | 14 | 15 | 15 | 14 | 15 | 2.55 | .026 | ---- |
| Too many noninstructional duties (T) | 15 | 15 | 15 | 13 | 13 | 15 | 11 | 16.77 | .001 | 2 < 6<br>1 < 2 & 3 & 4 & 5 & 6 |

[a] I=Impact Concern Item; S=Self; T=Task

[b] These ranks were derived from pooling all samples ($N \simeq 1200$)

[c] (1) entering training, (2) pre-student teaching, (3) post-student teaching, (4) 1st yr. teaching, (5) 3rd yr. teaching, (6) 5th yr. teaching

[d] One-way ANOVA, points in professional development on concerns measure

[e] Scheffe pair-wise comparisons $p \leq .10$. The first entry may be read: Group 6 mean was found to be significantly less than the mean of group 2, of group 3 and of group 4.

Table 7

Attitude Statements Rank Ordered by Level of Positiveness for Gender, Teaching Field, and Total Sample

| Item | Rank for Total Sample | Gender M | Gender F | p[b] | Teaching Field[c] (1) | (2) | (3) | (4) | p | Scheffe[d] |
|---|---|---|---|---|---|---|---|---|---|---|
| Teaching not for me[a] | 1 | 1 | 1 | .001 | 1 | 1 | 1 | 1 | .017 | 1 > 2 |
| Don't care for teacher work[a] | 2 | 2 | 2 | .001 | 2 | 3 | 3 | 2 | .001 | 1 > 2 & 3 & 4 |
| I enjoy teaching | 3 | 3 | 4 | .001 | 3 | 5 | 4 | 3 | .001 | 1 > 2 & 4 |
| Not convinced important[a] | 4 | 5 | 3 | .001 | 4 | 2 | 2 | 4 | .166 | ---- |
| Advantages to teaching | 5 | 4 | 6 | .001 | 5 | 6 | 6 | 5 | .001 | 1 > 2 & 3 & 4 |
| Not worth sacrifice[a] | 6 | 6 | 5 | .001 | 6 | 4 | 5 | 6 | .072 | 1 > 4 |
| More advantages vs. disadvantages | 7 | 7 | 7 | .001 | 7 | 7 | 7 | 7 | .002 | 1 > 2 & 3 & 4 |
| Good job | 8 | 8 | 8 | .010 | 9 | 8 | 9 | 8 | .051 | ---- |
| Best job I can think of | 9 | 9 | 9 | .031 | 8 | 9 | 8 | 9 | .001 | 1 > 2 & 4 |
| Take any job related teaching | 10 | 10 | 10 | .001 | 10 | 10 | 10 | 10 | .001 | 1 > 2 & 4 |
| Wonderful occupation for me | 11 | 11 | 11 | .152 | 11 | 11 | 11 | 11 | .326 | ---- |

[a]These four items are reversed scored as they are stated negatively (e.g., A high score means the subject disagreed with the negative statement about teaching).

[b]Probability level of difference between means for each gender; for all items where the mean difference was significant the item mean was higher for the female subjects.

[c](1) elementary, (2) secondary, (3) special education, (4) specialized areas (e.g., art, music, etc.)

[d]Differences on item score means with Scheffe set at $p \leq .10$.

Table 8

Attitude Statements Rank Ordered by Level of Positiveness for Total Sample and Samples During Preservice and Inservice

| Item | Rank for Total Sample | Groups[b] Preservice (1) | (2) | (3) | Inservice (4) | (5) | (6) | F[c] | p | Scheffe[d] |
|---|---|---|---|---|---|---|---|---|---|---|
| Teaching not for me[a] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1.65 | .168 | ---- |
| Don't care for teacher work[a] | 2 | 2 | 3 | 5 | 3 | 4 | 3 | 6.11 | .001 | 1 > 2 & 3 |
| I enjoy teaching | 3 | 4.5 | 5 | 2.5 | 4 | 2 | 2 | 3.39 | .005 | 2 < 5 & 6 |
| Not convinced important[a] | 4 | 4.5 | 4 | 2.5 | 1 | 3 | 4 | 0.56 | .728 | ---- |
| Advantages teaching | 5 | 6 | 2 | 4 | 5 | 5 | 5 | 2.40 | .036 | ---- |
| Not worth sacrifice[a] | 6 | 3 | 6 | 6 | 6 | 7 | 7 | 13.22 | .001 | 1 > 2 & 3 & 4 & 5 & 6 |
| More advantages vs. disadvantages | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 0.55 | .739 | ---- |
| Good job | 8 | 8 | 8 | 9 | 8 | 8 | 9 | 1.23 | .292 | ---- |
| Best job I can think of | 9 | 9 | 9 | 8 | 9 | 9 | 8 | 1.63 | .149 | ---- |
| Take any job related teaching | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 4.25 | .001 | 1 < 3 |
| Wonderful occupation for me | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 5.91 | .001 | 4 < 1 & 2 & 3<br>1 > 5 |

[a]These four items are reversed scored as they are stated negatively (e.g., A high score means the subject disagreed with the negative statement about teaching).

[b](1) entering training, (2) pre-student teaching, (3) post-student teaching, (4) 1st yr. teaching, (5) 3rd yr. teaching, (6) 5th yr. teaching

[c]One-way ANOVA F value among score means for six points of measurement during professional development

[d]$p \leq .10$